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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/645,572 | 08/22/2003 | John M. Murkin | 10545-7 | 8213 |

1059 7590 12/15/2004

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CANADA

EXAMINER

JAWORSKI, FRANCIS J

ART UNIT PAPER NUMBER

3737

DATE MAILED: 12/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/645,572

Applicant(s)

MURKIN, JOHN M.

Examiner

Jaworski Francis J.

Art Unit

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03012004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>3-1-04 (3 sheets)</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

[Parenthesized claim number(s) identify the specific claim or claims towards which the immediately preceding rejection is directed].

Claims 1 , 8 - 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frederiksen (US6,210,336) in view of Oakley et al (US5US5335663). The former is directed to an intraoperative probe and method for its use and whose base member contains a fixation ring or other watertight securement for example 1402 of Fig. 14 which secures the pad in a given orientation and in one embodiment the opposite surface is adapted to be placed about a heart or artery to conform thereto, see col. 9 lines 7 – 32. Elsewhere in col. 8 lines 42 – 67 Frederiksen states that the pad material is acoustically non-interfering and may include non-allergic latex-like products. While Frederiksen is silent as to whether the probe is capable of being sterilized, it would have been obvious in view of Oakley et al col. 14 lines 20 – 22 similarly directed to intraoperative probes and their use and having forward shape-conforming pads

(e.g. 174 of Figs. 13, 14) that latex for example may be in a surgically sterilizable form. (Claims 1, 11-12, 15-18).

Since Fredriksen specifically contemplates intra-operative conforming placement of the pad against an artery this would embrace the aorta and/or aortic arch as one obvious artery enactment. (Claims 8 – 10).

Frederiksen is silent as to the use of polyvinylchloride however Oakley et al in col. 14 lines 60-63 contemplated its use as a suitable material for the membrane portions of such an intraoperative device. (Claim 13).

A drawstring would be a well-known equivalent form of fixation band or ring in the aforementioned attachment function. (Claim 14).

Claims 2 – 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frederiksen in view of Oakley et al as applied to claim 1 above, and further in view of Katsumata et al (US5078149) which teaches that a coupling pad characterizable as rigid or semi-rigid may be used intra-operatively to conform to the surface to which it is applied, see col. 2 lines 18-24, col. 3 lines 37-40 and col. 5 lines 47 - 53. (Claims 2-3).

Claims 4, 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Frederiksen in view of Oakley et al and Katsumata as applied to claims 2 or 3 above, and further in view of Shikunami et al (US5039774) since whereas Katsumata et al does not mention the specific claimed gel materials, it would have been obvious in view of the latter col. 1 line 51 – col. 2 line 5 to use gelatine or alginate as ultrasound couplant pad materials since they were heretofore known to be suitable for this use. (Claims 4, 6).

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frederiksen in view of Oakley, ¹/₂ Cespedes et al (US6165128). Whereas the former are silent as to use of couplant agar, it would have been obvious in view of the latter to use such since this would have been known to be suitable for transmissive matching to tissue, see col. 5 line 31. thereof. (Claim 5).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to claims 2-3 above, and further in view of Law et al (US5469853). Whereas the former is silent as to specific use of saline in for example a couplant bag as used in either of the base references, it would have been obvious in view of the latter improvement patent to Oakley et al in col. 34 lines 64 – 65 to use saline solution as the acoustically transmissive medium for such since this is biocompatible and acoustically equivalent to the sterile water mentioned in Frederiksen. (Claim 7).

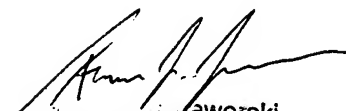
Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Frederiksen in view of Oakley et al as applied to claim 18 above alone or further in view of Katsumata et al, and further in view of Richardson et al (US4459854). Whereas the former are silent as to the use of a plurality of conforming members, it would have been obvious in view of Richardson et al, with or without Katsumata et al as a reference supporting the use of at least a semi-rigid conforming member to use different size conforming members on different arteries in order to avoid an attenuative gap, see col. 2 lines 22 – 36 of the latter. Claim 19).

Art Unit: 3737

Any inquiry concerning this communication should be directed to Jaworski
Francis J. at telephone number 703-308-3061.

FJJ:fjj

12042004



F. J. Jaworski
Primary Examiner